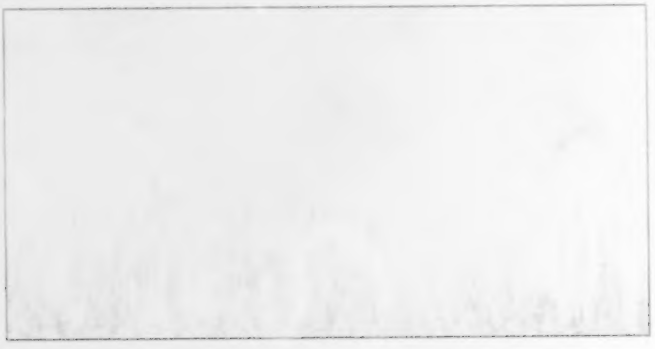
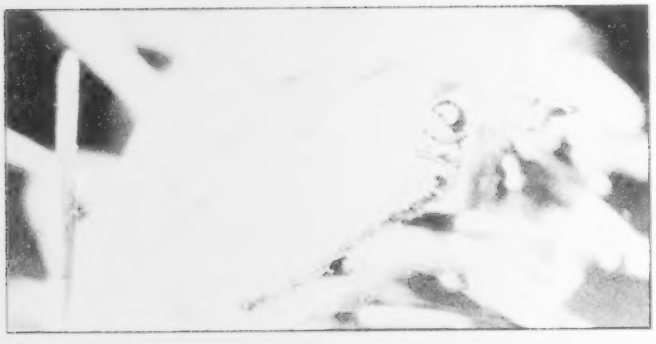
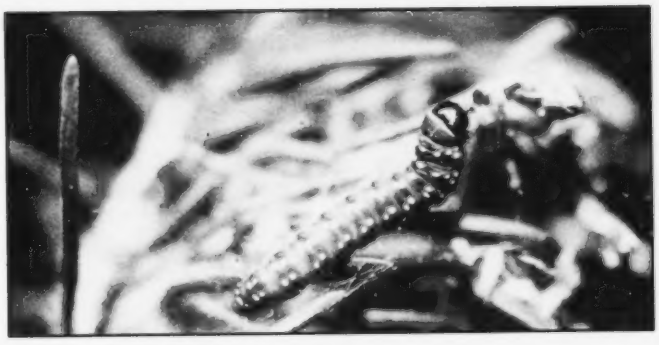
Fire and Forest Insect and Disease Management Policy Framework





Saskatchewan
Environment

t Insect and
gement Policy Framework



Vision

A high quality environment, and healthy ecosystems in perpetuity which sustain social, health and economic well-being for Saskatchewan citizens.

Saskatchewan Environment believes this vision describes the link between its mandate for environmental protection and sustainable resource management with broader government and public goals for economic growth, social progress and sustainable development.

Principles

Ecosystem Approach
Environmental protection and resource management should be based on an ecosystem approach, recognizing that all components in an ecosystem are closely linked and cannot be managed in isolation.

Prevention
Saskatchewan Environment operates on the principle that it is better to "anticipate and prevent" environmental and resource degradation rather than "react and cure".

Risk Assessment
Saskatchewan Environment assesses environmental risks and resource management issues before taking action.

Precaution
When in doubt about potential negative impacts, Saskatchewan Environment chooses to preserve the environmental status quo.

Shared Responsibility
Sustainable development requires widespread involvement of all concerned individuals and groups.

Integration
The environment must be protected and managed in a systematic way, fully-integrating all aspects of the economy and society.

Stewardship
Sustainable development approaches should be considered for their long-term benefits, recognizing the world also belongs to future generations.

Full Information on Costs
Information about environmental costs should be made available so that sound decisions can be made.

Goals

Our long-term goal is to develop and maintain a wildfire and forest insect and disease management policy for Saskatchewan that balances the need to maintain healthy ecosystems in the province with the need to provide economic, social and cultural opportunities for the benefit of present and future generations.

The goal of this policy is consistent with Saskatchewan Environment's Forest Management Policy Framework and includes the sub-goals to:

- maintain and enhance the health of the forest and prairie lands;
- allow a variety of opportunities for people both now and in the future; and
- balance the need for protection with opportunities for use.

103-04755/

Concerns

Saskatchewan's new Fire and Forest Insect and Disease Management Policy Framework is designed to address the following concerns:

- forest uses are increasing such that protection services for all values cannot be met;
- wildfire risks to people and structures are increasing, but many residents, communities and businesses have not taken steps to protect their own interests;
- at the same time that fire provides ecological benefits for forests and prairie landscapes, there is a general public perception that all fire should be suppressed; and
- a clear direction on how to manage forest insects and diseases is needed.

Background

The expanding uses of the forest, the increasing population of northern Saskatchewan and the escalating costs of fire suppression are placing unprecedented challenges on the province's fire management program. Over the past few years, extensive reviews have been undertaken to determine ways to make fire suppression operations more efficient and to revisit fire management and forest protection policies.

Fire is a natural disturbance that stimulates the regrowth of new forests. Forest insects and diseases also play an important role in forest ecology. A management framework is needed to protect the things people value, and at the same time, allow these natural disturbances to fulfil their ecological roles.

Many industries depend on a healthy forest ecosystem, including timber harvesting, outfitting, tourism, commercial fishing, recreation and harvesting of non-timber products. As well, the forest generates spiritual, cultural and environmental values that must be considered.

Management Guidelines

The new Fire and Forest Insect and Disease Management Policy Framework was developed, based on the following guidelines:

- the province will continue to be responsible for managing and protecting ecosystems on provincial Crown lands;
- protection of human life will continue to be the top priority for Saskatchewan's fire management program;
- the department's eight principles of ecosystem-based management will guide policy development;
- the natural role of fire and forest insects and diseases on the landscape will be recognized;
- the department is committed to its Aboriginal and public involvement policies;
- policy development will consider impacts on people, forest resources and users' values;
- forest protection must be cost-effective and will consider the economic benefits for those who depend on the forest; and
- research and new scientific tools will be promoted to reduce losses from fires and forest insects and diseases.

Vision

Principles

Ecosystem Approach

Prevention

Risk Assessment

Precaution

Shared Responsibility
Sustainable development requires widespread involvement of all concerned individuals and groups.

Integration
The environment must be protected and managed in a systematic way, fully integrating all aspects of the economy and society.

Stewardship
Sustainable development approaches should be considered for their long-term benefits, recognizing the world also belongs to future generations.

Full Information on Costs
Information about environmental costs should be made available so that sound decisions can be made.

Goals

Defining Concerns

103-04755

Saskatchewan's new Fire and Forest Insect and Disease Management Policy Framework is designed to address the following concerns:

- forest uses are increasing such that protection objectives for all values cannot be met
- wildfire risks to people and resources are increasing, but many residents, communities and businesses have not taken steps to protect their own interests
- at the same time that fire is a natural component of forests and ecosystems, there is a general public perception that all fire should be suppressed; and
- a clear direction on how to integrate forest insects and diseases is needed.

Background

The expanding uses of the forest, the increasing population of northern Saskatchewan and the escalating costs of fire suppression are placing unprecedented challenges on the province's fire management program. Over the past few years, extensive reviews have been undertaken to determine ways to make fire suppression operations more efficient and to adapt fire management and forest protection policies.

Fire is a natural disturbance that stimulates the regrowth of new forests. Forest insects and diseases also play an important role in forest ecology. A management framework is needed to protect the living people, value, and at the same time, allow these natural disturbances to fulfill their ecological roles.

Many industries depend on a healthy, forest ecosystem, including timber harvesting, outfitting, tourism, commercial fishing, recreation and harvesting of non-timber products. As well, the forest generates spiritual, cultural and environmental values that must be considered.

Policy Development Guidelines

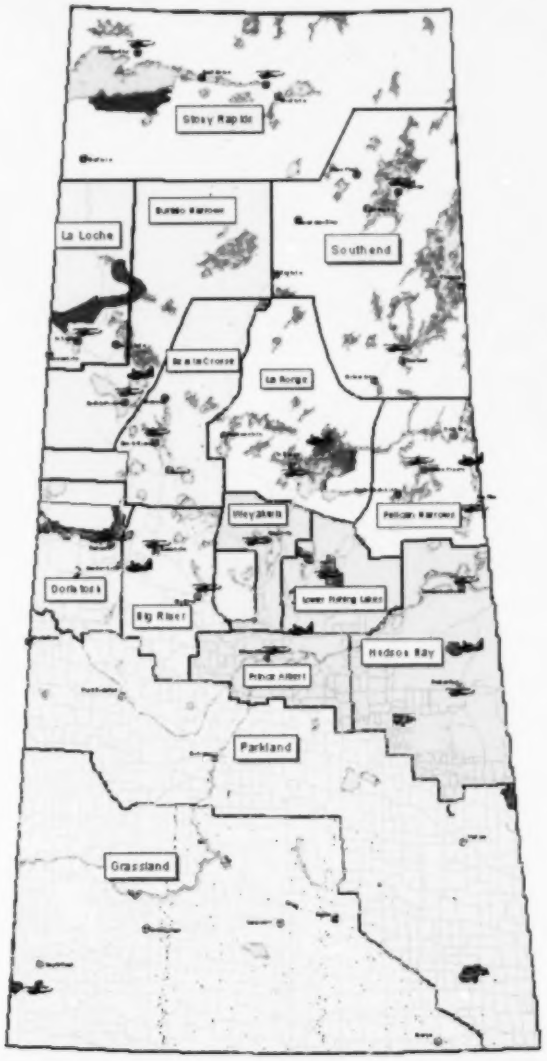
The new Fire and Forest Insect and Disease Management Policy Framework was developed, based on the following guidelines:

- the province will continue to be responsible for managing and protecting ecosystems on provincial Crown lands
- protection of human life will continue to be the top priority for Saskatchewan's fire management program
- the department's eight principles of ecosystem-based management will guide policy development
- the natural role of fire and forest insects and diseases on the landscape will be recognized
- the department is committed to its Aboriginal and public involvement policies
- policy development will consider impacts on people, forest resources and users' values
- forest protection must be cost-effective and will consider the economic benefits for those who depend on the forest; and
- research and new scientific tools will be promoted to reduce losses from fires and forest insects and diseases.

The scope of the Fire and Forest Insect and Disease Management Policy includes all provincial forests, parks and recreation sites and all vacant Crown lands in the Province of Saskatchewan. Also included are all Crown resource lands, Fish and Wildlife Development Fund lands and any lands administered by other agencies over which Saskatchewan Environment has significant influence.

This policy seeks to establish linkages among all land use activities on these lands.

Saskatchewan Forest Protection Areas



For administrative purposes, Saskatchewan Environment has divided the province into five EcoRegions - Grassland, Parkland, East Boreal, West Boreal and Shield.

Each EcoRegion has a fire manager and the two southern EcoRegions also have a forest protection officer (FPO). Due to increased levels of fire management activity, the three northern EcoRegions are subdivided into 13 forest protection areas (FPAs), with a dedicated FPO in each FPA.

In most instances, fire suppression resources will be adequate and difficult decisions about what to protect will not be necessary. However, fire managers and FPOs across the province will be instrumental in developing the 'values at risk' priorities for their areas - should the need to choose among values arise.

FPOs are available to help the public reduce wildfire risks, to issue required burning permits from April 1 to October 31 and to provide information on safe burning practices.

In an effort to keep a fire from crossing a highway in northern Saskatchewan, one of Saskatchewan's six CL-215 airtankers actions a fire to support ground crews.

Fire Protection Priorities

POLICY STATEMENT
Saskatchewan Environment will use a 'values at risk' approach to decision-making relating to fire suppression priorities. Human life and safety will receive the highest priority. An integrated approach will be used to make decisions regarding risks to economic, social, cultural and ecological values.

Saskatchewan residents place value on a wide range of forest attributes and uses, including: social, economic, cultural and ecological considerations. For about 70 years, provincial fire managers have operated on the protection priorities of human life, property, valuable forest resources and non-valuable forest resources.

One of the largest challenges facing forest protection staff under the new policy framework will be to develop a new set of protection priorities. They will be based on the 'values at risk' identified by the public within their respective areas. Human life and firefighter safety will always remain the top priority.

In most instances, fire managers will have enough resources to protect all of the 'values at risk' in their areas from fire. However, in the event of multiple fire outbreaks, fire managers may be forced to choose among 'values at risk'. What should they protect and when should it be protected? Some of the answers to these questions have been provided through the extensive consultations with the public that have taken place over the past few years.

However, fire protection staff will still need to analyze how the public ranks various forest 'values at risk' from wildfire and use that information to make fire management decisions. Ecosystem health and cultural, spiritual and recreational values will be considered and weighed against the value of a structure or other economic values such as trapping income, timber or mining/exploration camps. Decisions will have to be based on the risk fire poses to all values and the capability to protect them or suppress a fire in a given situation.

Scope Statement

The scope of the Fire and Forest Insect and Disease Management Policy includes all provincial forests, parks and recreation sites and all vacant Crown lands in the Province of Saskatchewan. Also included are all Crown resource lands, Fish and Wildlife Development Fund lands and any lands administered by other agencies over which Saskatchewan Environment has significant influence.

This policy seeks to establish linkages among all land use activities on these lands.

Saskatchewan Forest Protection Areas

For administrative purposes, Saskatchewan Environment has divided the province into five EcoRegions - Grassland, Parkland, East Boreal, West Boreal and Shield.

Each EcoRegion has a fire manager and the two southern EcoRegions also have a forest protection officer (FPO). Due to increased levels of fire management activity, the three northern EcoRegions are subdivided into 13 forest protection areas (FPAs), with a dedicated FPO in each FPA.

In most instances, fire suppression resources will be adequate and difficult decisions about what to protect will not be necessary. However, fire managers and FPOs across the province will be instrumental in developing the values at risk priorities for their areas - should the need to choose among values arise.

FPOs are available to help the public reduce wildfire risks, to issue required burning permits from April 1 to October 31 and to provide information on safe burning practices.

In an effort to keep a fire from crossing a highway in northern Saskatchewan one of Saskatchewan's six CL-215 airtankers actions a fire to support ground crews.

Setting Fire Protection Priorities

POLICY STATEMENT

Saskatchewan Environment will use a 'values at risk' approach to decision-making relating to fire suppression priorities. Human life and safety will receive the highest priority. An integrated approach will be used to make decisions regarding risks to economic, social, cultural and ecological values.

Saskatchewan residents place value on a wide range of forest attributes and uses including social, economic, cultural and ecological considerations. For about 70 years, provincial fire managers have operated on the protection priorities of human life, property, valuable forest resources and non-valuable forest resources.

One of the largest challenges facing forest protection staff under the new policy framework will be to develop a new set of protection priorities. They will be based on the 'values at risk' identified by the public within their respective areas. Human life and firefighter safety will always remain the top priority.

In most instances, fire managers will have enough resources to protect all of the 'values at risk' in their areas from fire. However, in the event of multiple fire outbreaks, fire managers may be forced to choose among 'values at risk'. What should they protect and when should it be protected? Some of the answers to these questions have been provided through the extensive consultations with the public that have taken place over the past few years.

However, fire protection staff will still need to analyze how the public ranks various forest 'values at risk' from wildfire and use that information to make fire management decisions. Ecosystem health and cultural, spiritual and recreational values will be considered and weighed against the value of a structure or other economic values such as trapping income, timber or mining exploration camps. Decisions will have to be based on the risk fire poses to all values and the capability to protect them or suppress a fire in a given situation.

Roles and Responsibilities

POLICY STATEMENT
Saskatchewan Environment will develop and use co-operative fire protection initiatives with other governments and organizations to ensure that respective roles and responsibilities are clear, and that individuals, communities and rural municipalities are aware of preventative actions which can be taken to reduce wildfire risks.

Wildfire has been and always will be active on Saskatchewan's landscape, particularly in the boreal forest. Under emergency measures legislation, everyone has a responsibility to protect themselves from wildfire. When losses due to wildfire occur, the agencies involved in fire protection are not responsible for compensation. Property owners should carry full insurance coverage on all holdings. The department will, however, continue to provide fire prevention and fire protection programs.

Saskatchewan Environment will endeavour to increase co-operation among fire management agencies in the province and foster a better understanding of the roles and responsibilities of all fire management jurisdictions in the province. All fire management agencies will be encouraged to work with landowners and communities to reduce wildfire risks.

By reducing wildland fire risks to property and communities, the department will be able to focus more energy on protecting and managing resources.

External Linkages

POLICY STATEMENT
The department will develop new co-operative relationships and maintain existing ones with organizations and agencies outside of Saskatchewan that enhance the ability to deliver fire protection within the province, and to ensure that fire programs and systems reflect current knowledge and practice.

It is simply too difficult and costly for a single jurisdiction to permanently maintain enough wildfire management equipment, aircraft, supplies and personnel to deal with prolonged extreme fire weather conditions and multiple fire events.

Interprovincial and international agreements are in place to facilitate the exchange of fire suppression resources.

Continued interagency co-operation will be essential to respond effectively to periodic severe fire events.

Therefore, Saskatchewan Environment will continue to maintain and develop strong relationships with fire management organizations outside the province. The potential for new co-operative relationships will also be explored.

Improving Accountability

POLICY STATEMENT
Saskatchewan Environment will continually strive to improve the effectiveness and efficiency of its fire management program by setting program goals and measures of success, with linkages to expenditures.

Fire protection includes prevention, detection, initial attack, sustained action and training. Supporting requirements include equipment procurement, airtankers, financial management, planning, effective legislation, and science and research. Each of these components requires objectives that will support overall fire program goals.

Setting objectives and measures of success must be based on a clear 'values at risk' model of protection priorities, indicating what and where forest protection should occur. Once this has been achieved, fire science and emerging concepts will be used to compile the objectives for each activity.

Fire Ecosystem Management

POLICY STATEMENT

The department will include fire management as a fundamental component of land use and resource management initiatives. As a natural part of ecosystems, fire will be used as a management tool in appropriate situations to achieve landscape objectives.

Fire is a natural part of dynamic and complex ecosystems. The department will analyze under what circumstances fire may be used as a management tool and what factors need to be considered. Where in the past, Saskatchewan Environment has worked to exclude fire from the landscape, the department's actions will now acknowledge the beneficial role that fire plays in ecosystems. The new policy will not attempt to eliminate fire from ecosystems, but rather to suppress wildfires that threaten critical values, and also to introduce fire, if needed, to maintain or restore ecosystem health.

The key to promoting fire in an ecosystem-based approach to resource management is establishing a fire program that is driven by landscape management objectives. The goal is to manage resources for economic, social and ecological benefits in a way that integrates fire into land management.

Insects and Diseases

POLICY STATEMENT

Saskatchewan Environment will include insect and disease management as integral components of broader landscape-planning and decision-making. Insect and disease management policies will take a long-term, comprehensive and strategic approach to delivering protection services based on 'values at risk' and the concepts of Integrated Pest Management (IPM).

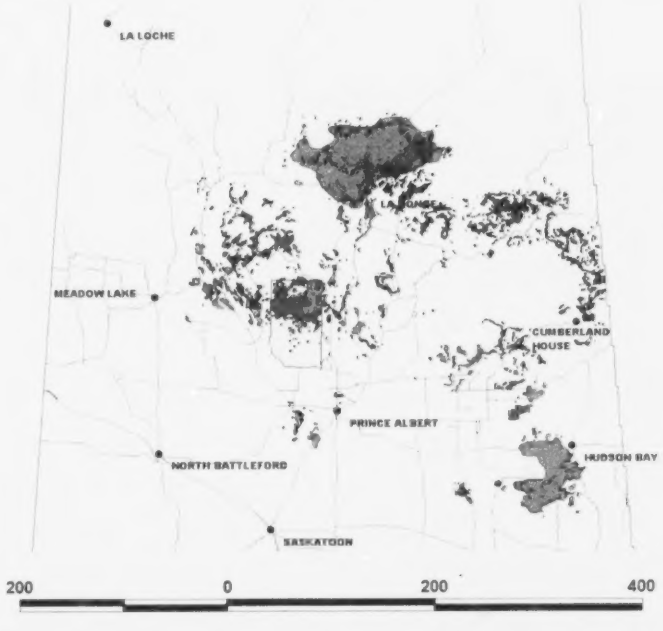
This policy will ensure that forest insect and disease management is fully considered and integrated within land use and resource management plans. Strategic priorities are to maintain the quality of forest ecosystem health, while protecting commercial timber supplies and other values.

Management strategies will be unique for each insect and disease, and will be based on public consultation, sound science, the proactive application of new knowledge and the concept of adaptive management.

Under this policy, the department will retain ultimate responsibility for the program, but may work with industry and other partners. In all instances, the most ecologically, economically and socially acceptable management strategies will be developed on a case-by-case basis.

Saskatchewan Spruce Budworm Infestation

Spruce budworm is just one of many forest insects and diseases - some indigenous and others exotic - that can have significant effects on forest ecosystems. The shaded areas on the map below show areas severely defoliated by spruce budworm between 1992 and 1999.



Roles and Responsibilities

POLICY STATEMENT

Saskatchewan Environment will develop and use co-operative fire protection initiatives with other governments and organizations to ensure that respective roles and responsibilities are clear, and that individuals, communities and rural municipalities are aware of preventative actions which can be taken to reduce wildfire risks.

External Linkages

POLICY STATEMENT

The department will develop new co-operative relationships and maintain existing ones with organizations and agencies outside of Saskatchewan that enhance the ability to deliver fire protection within the province, and to ensure that fire programs and systems reflect current knowledge and practice.

Improving Accountability

POLICY STATEMENT

Saskatchewan Environment will continually strive to improve the effectiveness and efficiency of its fire management program by setting program goals and measures of success, with linkages to expenditures.

Fire in Ecosystem Management

POLICY STATEMENT

The department will include fire management as a fundamental component of land use and resource management initiatives. As a natural part of ecosystems, fire will be used as a management tool in appropriate situations to achieve landscape objectives.

Forest Insects and Diseases

POLICY STATEMENT

Saskatchewan Environment will include insect and disease management as integral components of broader landscape-planning and decision-making. Insect and disease management policies will take a long-term, comprehensive and strategic approach to delivering protection services based on 'values at risk' and the concepts of Integrated Pest Management (IPM).

This policy will ensure that forest insect and disease management is fully considered and integrated within land use and resource management plans. Strategic priorities are to maintain the quality of forest ecosystem health, while protecting commercial timber supplies and other values.

Management strategies will be unique for each insect and disease, and will be based on public consultation, sound science, the proactive application of new knowledge and the concept of adaptive management.

Under this policy, the department will retain ultimate responsibility for the program, but may work with industry and other partners. In all instances, the most ecologically, economically and socially acceptable management strategies will be developed on a case-by-case basis.

Saskatchewan Spruce Budworm Infestation

Spruce budworm is just one of many forest insects and diseases - some indigenous and others exotic - that can have significant effects on forest ecosystems. The shaded areas on the map below show areas severely defoliated by spruce budworm between 1992 and 1999.

Public Education

POLICY STATEMENT

The department will strive to improve public knowledge and awareness of the role of fire and forest insects and diseases as natural components of ecosystems, and as tools in ecosystem management. The continuing importance of fire prevention and protection will be clearly communicated and public awareness of pest management issues will be enhanced.

While fire prevention programs will continue to be important, emphasis will be placed on the beneficial role of fire and forest insects and diseases in ecosystems.

The increasing complexity of natural resource management issues makes it essential for the public to have access to clear, accurate and timely information. This will be the foundation for good public involvement.

Recognizing that all wildfires cannot be prevented, the department will assist stakeholders in wildfire risk assessment, fuels management and community planning. By educating the public about wildfire risks, both the number of human-caused fires and the damage they do to communities, individual homes and property can be reduced.

Monitoring and Research

POLICY STATEMENT

Saskatchewan Environment will continue to improve its information and knowledge regarding the functioning, health and management of ecosystems, and develop monitoring and evaluation programs to ensure that it can adapt its ongoing policies and programs.

Ongoing research and monitoring on how ecosystems respond to natural disturbances and human activities is needed. The department's ecosystem-based management approach has shifted efforts from elements of the landscape to keeping the landscape healthy. To successfully implement ecosystem-based management, more knowledge is required about ecosystem components and how they work together.

Using the knowledge gained from long-term monitoring of the effects of fire and forest insects and diseases on the landscape, Saskatchewan Environment will implement programs that will help accomplish resource and land management objectives.

This policy is approved by

Buckley Belanger, Minister
Saskatchewan Environment

Public Education

POLICY STATEMENT

The department will strive to improve public knowledge and awareness of the role of fire and forest insects and diseases as natural components of ecosystems, and as tools in ecosystem management. The continuing importance of fire prevention and protection will be clearly communicated and public awareness of pest management issues will be enhanced.

While fire prevention programs will continue to be important, emphasis will be placed on the beneficial role of fire and forest insects and diseases in ecosystems.

The increasing complexity of natural resource management issues makes it essential for the public to have access to clear, accurate and timely information. This will be the foundation for good public involvement.

Recognizing that all wildfires cannot be prevented, the department will assist stakeholders in wildfire risk assessment, fuels management and community planning. By educating the public about wildfire risks, both the number of human-caused fires and the damage they do to communities, individual homes and property can be reduced.

Monitoring and Research

POLICY STATEMENT

Saskatchewan Environment will continue to improve its information and knowledge regarding the functioning, health and management of ecosystems, and develop monitoring and evaluation programs to ensure that it can adapt its ongoing policies and programs.

Ongoing research and monitoring on how ecosystems respond to natural disturbances and human activities is needed. The department's ecosystem-based management approach has shifted efforts from elements of the landscape to keeping the landscape healthy. To successfully implement ecosystem-based management, more knowledge is required about ecosystem components and how they work together.

Using the knowledge gained from long-term monitoring of the effects of fire and forest insects and diseases on the landscape, Saskatchewan Environment will implement programs that will help accomplish resource and land management objectives.

This policy is approved by:

Buckley Belanger, Minister
Saskatchewan Environment